



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/842,750 | 04/25/2001 | B. Arlen Young | ADPT1048 | 8262 |

7590

07/02/2003

Forrest Gunnison
Gunnison, McKay & Hodgson, L.L.P.
Suite 220
1900 Garden Road
Monterey, CA 93940

EXAMINER

FAROOQ, MOHAMMAD O

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2182

DATE MAILED: 07/02/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

M

Office Action Summary

Application No.

09/842,750

Applicant(s)

YOUNG, B. ARLEN

Examiner

Mohammad O. Farooq

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 10 is objected to because of the following informalities: in line 6 of this claim the applicant mentions "wherein hardware header generator" but there is no mention of this elsewhere earlier in the claim, rather the applicant mentions "hardware body generator". This office action treats line 6 as "wherein hardware body generator...". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosco, U.S. Pat. No. 6,477,165 in view of Simms et al. U.S. Pat. No. 6,161,155.

3. As to claim 7, Kosco teaches a SCSI initiator system comprising:

a target execution queue (target devices) and a SCSI target (col. 4, lines 66-67; col. 5, lines 1-9) wherein the target execution queue is stored in a memory (since target receives information in bytes); and

a packetized SCSI protocol hardware packet engine (initiator; col. 5, lines 10-23) coupled to the target execution queue, wherein the packetized SCSI protocol hardware packet engine transmits a packetized SCSI protocol command block in said target execution queue (target devices) with substantially zero latency between transmission of adjacent packetized SCSI protocol command blocks (increase in throughput efficiency; col. 3, lines 27-41).

Kosco does not teach two hardware I/O control blocks. Simms et al. teach two hardware I/O control blocks (data packet A and data packet B; item 32, fig. 1).

However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Kosco and Simms et al. because that would provide logical link between the data packets initiator and target devices (col. 1, lines 61-67; col. 2, lines 1-8).

4. As to claim 8, Kosco teaches hardware packet engine comprising transfer controller (which asserts ATN and REQ/ACK) which sequence hardware generation of the packetized SCSI command blocks upon receiving an active signal (ATN; col. 5, lines 10-23).

Kosco does not teach start input line and a data out phase input line. However, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Kosco to incorporate start input line and a data out phase input line because the would provide command information to each of the target devices in a single protocol sequence.

5. As to claim 9, Kosco teaches header generator (since various bytes in the packet represent various information about the packet) coupled to the hardware information unit transfer controller, wherein the header generator generated fields in a command L_Q information unit in response to signals from the hardware information unit transfer controller (col.6, lines 60-67; col. 7, lines 1-34).

6. As to claims 10 and 11, Kosco does not teach hardware packet engine comprise a hardware body generator. However, it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate hardware body generator to the teachings of Kosco because that would provide significant reductions in communication transaction overhead by bursting multiple packets in a single protocol phase.

7. As to claims 12-15, Kosco teaches pointer register (which provides identification for the packet) in the system (col. 6, lines 60-67; col. 7, lines 1-34).

Art Unit: 2182

8. Method claims 1-6 and 21 have similar limitations as apparatus claims 7-15.

Kosco and Simms et al. in combination teach apparatus claims 7-15. Therefore, Kosco and Simms et al. in combination also teach method as set forth in claims 1-6 and 21.


9. Claims 16-20 have similar limitations as apparatus claims 7-15. Kosco and Simms et al. in combination teach apparatus claims 7-15. Therefore, Kosco and Simms et al. in combination also teach apparatus as set forth in claims 16-20.

Art Unit: 2182

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad O. Farooq whose telephone number is (703) 305-3888. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (703) 308-3301. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7239 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Mohammad O. Farooq
June 29, 2003